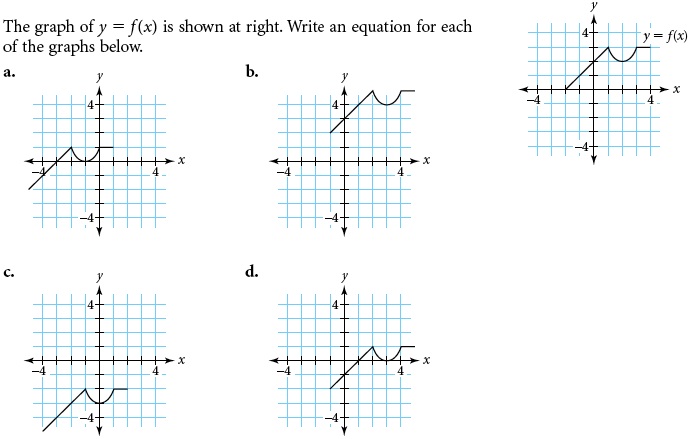
**More Function Transformations** Name:

Rodriguez/Adv Algebra

**Part 1**: Where will the given point end up after the function is changed?

|  |  |  |
| --- | --- | --- |
| Point on the graph of **y = *f*(x)** | Equation of the new graph | Coordinates of the moved point |
| (-8, 6) | **y = -2*f*(x + 5) – 7** |  |
| (0, -5) | **y = *f*(x – 3) – 2** |  |
| (4, 0) | **y = 7*f*(x + 2) + 8** |  |
| (-10, 10) | **y = -*f*(x – 10) + 10** |  |
| (-8, -1) | **y = ¼*f*(x + 7) – 1** |  |

**Part 2:** Working with Graphs

****

Match the graphs to their function names.

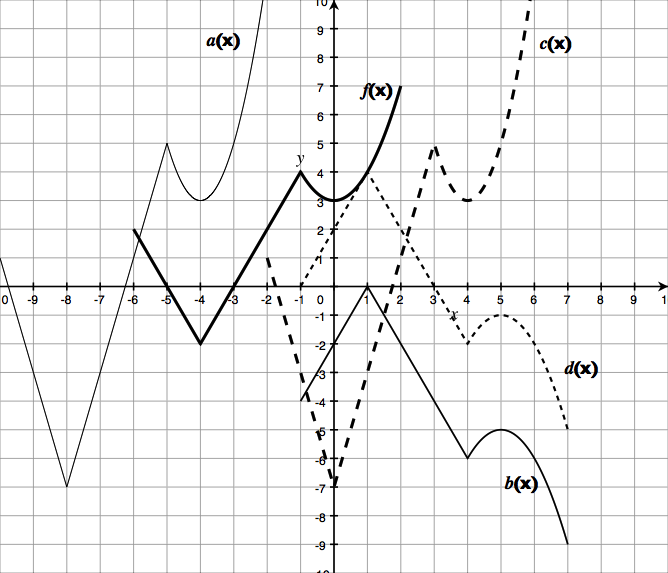
***Hint: pick a point on the original function, and determine how it has moved to get to its new location.***

**a.**

**b.**

**c.**

**d.**

****

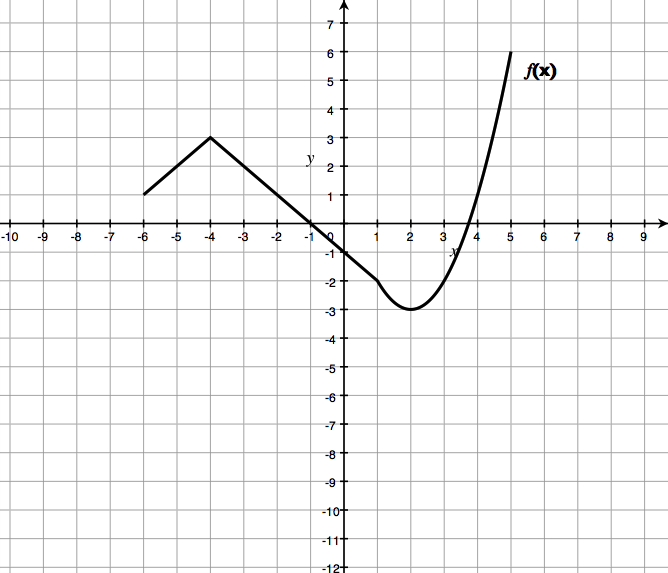
**\_\_\_\_\_\_ = -*f*(x – 5) + 2**

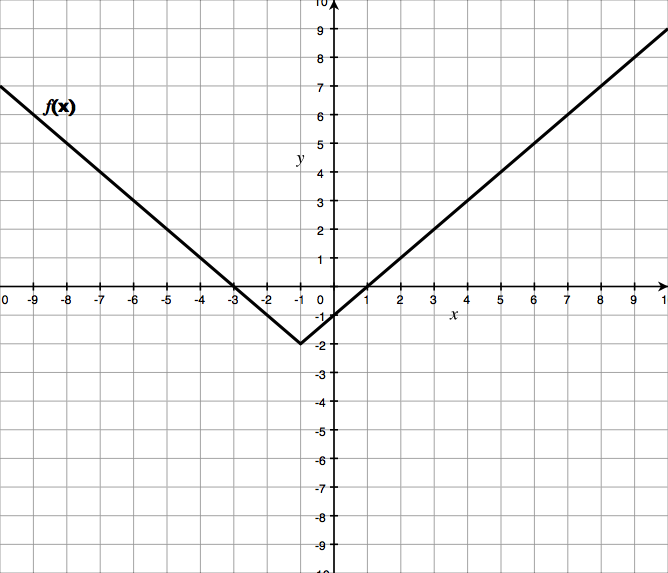
**\_\_\_\_\_\_ = -*f*(x – 5) – 2**

**\_\_\_\_\_\_ = 2*f*(x + 4) – 3**

**\_\_\_\_\_\_ = 2*f*(x – 4) – 3**

Draw and label the graphs of the new functions.





***g*(x) = 3*f*(x – 5) + 1**

***h*(x) = -½*f*(x + 2) – 5**

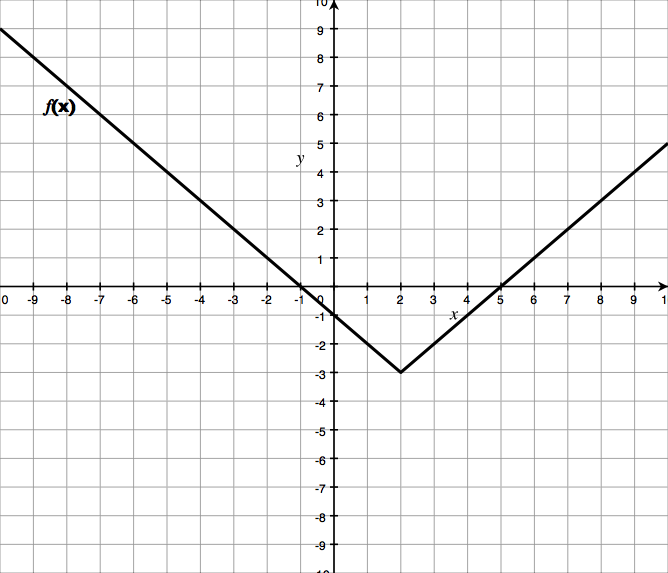
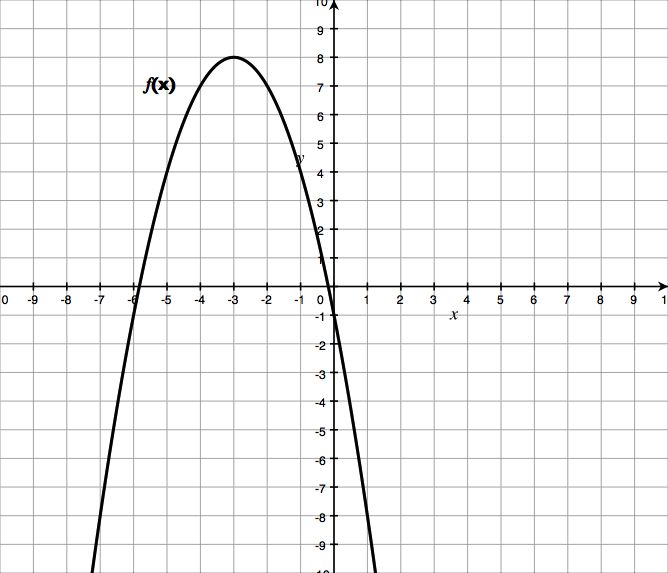
***g*(x) = ½*f*(x – 4) + 1**

***h*(x) = -*f*(x + 3) – 4**

**Part 3:** Where will the given point end up after the function is changed?

|  |  |  |
| --- | --- | --- |
| Point on the graph of **y = *f*(x)** | Equation of the new graph | Coordinates of the moved point |
| (0, 6) | **y = -4*f*(x + 5) – 8** |  |
| (6, 0) | **y = -4*f*(x + 5) – 8** |  |
| (7, 12) | **y = -¼*f*(x – 4) + 2** |  |
| (-9, -2) | **y = 3*f*(x – 2) + 6** |  |
| (½, ¼) | **y = 16*f*(x + 8) – 3** |  |

**Part 2: Draw and label the graphs of the new functions.**



***g*(x) = -2*f*(x – 3) + 1**

***h*(x) = -*f*(x + 4) – 3**

***g*(x) = ½*f*(x) – 5**

***h*(x) = ½*f*(x – 5)**